

## DIRECTOR'S COLUMN

## DOS-TS Training Opportunities

By Col. Stephen S. Seitz, JMTC Director of Simulation and Training Support

## DIRECTORATE OF SIMULATION AND TRAINING SUPPORT PROVIDES TRAINING SOLUTIONS

**T**he JMTC Directorate of Simulation and Training Support (DOS-TS) was formed in April 2009 as part of a reorganization of the Joint Multinational Training Command (JMTC).

The new directorate consists of a small staff and two previously existing organizations that are now DOS-TS Divisions: the Training Support Activity Europe (TSAE) and the Joint Multinational Simulation Center (JMSC). Personnel are currently assigned throughout the US Army Europe (USAREUR) footprint at 20 locations in seven countries. The directorate focuses on training programs and initiatives related to live, virtual, constructive, gaming, and Battle Command Integration for JMTC and USAREUR units.

**Training Support Activity Europe** provides live and virtual training support across USAREUR and manages Training Support Centers (TSCs) at all major military posts in the European area of responsibility. TSAE provides training support through the Regional Training Support Center (RTSC) structure. RTSCs support Brigade Commanders and manage programs for their associated TSCs.

TSAE has six RTSCs, 15 TSCs and a few satellite sites, (see Figure 1).

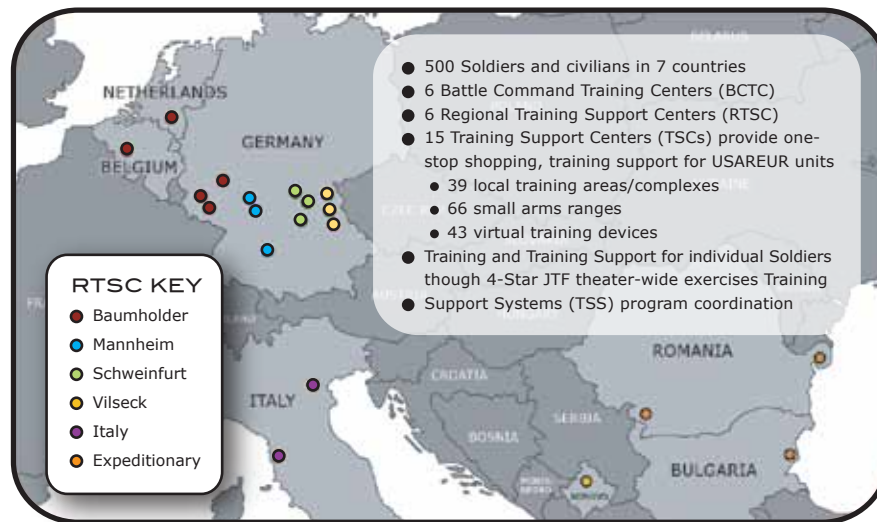


Figure 1 - TSC locations color-coded by RTSC Headquarters

The TSCs are designed for one-stop shopping for all units in their geographic area of responsibility. If they don't have the resources on hand to meet training requirements, they can reach-back into JMTC for any type of training support that may be required. TSCs typically provide Training Aids, Devices and Simulations (TADS), and



CH-47 mock-up for Airborne Training at TSC Italy (in Vicenza)

local training areas, including, scheduling, oversight, and maintenance. TSCs provide Visual Information support to include: official and passport photos, event photography, video production, visual aids creation, and presentation support, including enlargements and lamination. TSAE personnel manage multi-million dollar training programs and capabilities on behalf of USAREUR. For example, their Integrated Training Area Management (ITAM) Program manages land and enables compliance with environmental law while sustaining the Army's live training capability. Other programs result in range improvement and the latest TADS being fielded to Army forces throughout Europe.



BEFORE ITAM

Integrated Training Area Management (ITAM) has permitted the European wide Training Areas to increase off-road traffic while protecting natural interests simultaneously in host countries.



AFTER ITAM

The Training Aids Production Center (TAPC), located at Grafenwoehr, can custom make complex training aids out of wood, plastic, and metal with modeling and production (see page 26).

The Deployable Instrumentation System Europe (DISE) Team can facilitate instrumented AARs anywhere USAREUR Soldiers train. DISE is a combination of live instrumentation systems that

enough equipment to support 870 personnel and 300 vehicles, which is easily deployable and backward compatible with MILES. It has a robust instrumented AAR capability that supplements observer/controller observations, and is currently being used to support Task Force-East (TF-E), 2nd Stryker Cavalry Regiment led bilateral training with the Romanians and Bulgarians in their home nations (see page 25).



Reconfigurable Driver's Trainer interior

provide enhanced training and AAR capabilities at home station and deployed training areas. The team has



Reconfigurable Vehicle Tactical Trainer

TSAE also manages a plethora of portable virtual simulators including: Engagement Skills Trainers (EST), Call for Fire Trainers, Fire Support combined Arms Tactical Trainer, GUARDFIST

Observed Fire Trainers, Conduct-Of-Fire Trainer/ Gunnery Trainers, and a Stryker/MRAP (reconfigurable) Driver's Trainer. Construction is nearly complete on their Virtual Device Training Facility that will house mobile virtual devices located at Grafenwoehr when they are not deployed. This facility will be the home base for the trailer mounted simulators to include the newly acquired Reconfigurable Vehicle Tactical Trainer.

At TSAE's TSC Bamberg, part of RTSC Schweinfurt, the EST is modified to be used in military vehicles during unit training. The EST supports individual and collective weapons skills development in a dynamic virtual environment. Soldiers are challenged with a wide-variety of scenarios for marksmanship, collective training, and shoot and don't shoot training.



CH-47 flying into TSC Bamberg MOUT site. Photos by Ms. Sandra Roemer

The TSC also offers a mobile Virtual Combat Convoy Trainer (VCCT).



173rd ABCT Soldiers face opposing forces at the TSC Bamberg MOUT site

TSC Bamberg also provided one of three local training areas for training, during the 173rd Airborne Combat Team (ABCT) and 12th Combat Aviation Brigade's combined Mission Rehearsal Exercise (MRE) at the Joint Multinational Readiness Center in Hohenfels, Germany. The TSC supported operations that included an out-of-sector night-time air assault at their Military Operations on Urbanized Terrain site.

CAPABILITIES  
(Items not to relative scale.)

## HMMWV EGRESS ASSISTANCE TRAINER (HEAT)

Mechanical roll-over device that teaches safe dismount procedures after an IED attack.

TRAINING IMPROVED  
EXPLOSIVE DEVICES

Authentic and up to date, large and small simulated IEDs in multiple designs, suicide vests, trip wires, model kits in detail and variation, pyro and non-pyro devices as well as new items in development that are added regularly.

COUNTER IED ELECTRONIC  
WARFARE (CREW 2)

Interrupts triggering of IED Training Devices.



## MEDICAL TADS

Realistic medical training devices that train a variety of advance life saving skills.

CLOSE COMBAT MISSION  
CAPABILITIES KIT (CCMCK)

Replacement bolts allow actual weapons to fire paintballs.





## DOS-TS TRAINING OPPORTUNITIES, CONTINUED

The Joint Multinational Simulation Center (JMSC) supports Overseas Contingency Operations (OCO) training and Mission Rehearsal Exercises (MRXs). It also facilitates joint, combined, NATO, and service component commander, staff, and leader constructive simulation training from the individual Soldier to Combined Joint Task Forces staffs. It can host simultaneous events with more than 2,000 participants, including, Battle Command Training Center (BCTC) "spoke sites" with trainers and equipment at: Baumholder, Kaiserslautern, Hohenfels, Schweinfurt and Vincenza in accordance with training requirements.

The JMSC provides gaming-based training for small units to practice Warrior Leader Skills, actions on contact, IED defeat, and tactics, techniques, and procedures. The Center uses Virtual Battlespace 2 (VBS2), a first-person simulation that allows Soldiers to virtually conduct mounted and dismounted missions on geo-specific or geo-typical terrain. VBS2 has robust After Action Review (AAR) features. JMSC recently acquired a HUMINT Control



JMSC can custom make geo-specific simulated terrain; VBS2 view of MOUT facility at Hohenfels is shown

Cell (HCC) suite. It is designed to train Human Intelligence collectors to effectively gather information. The HCC system uses state-of-the art speech recognition and translation software, artificial intelligence,

speech synthesis, and a life-size projection as the training platform. Soldiers can interact with virtual avatars, to include interpreters, in a variety of scenarios.



Soldier talks with virtual avatar using the HUMINT Control Cell (HCC) system

The JMSC trains USAREUR personnel to use Army Battle Command Systems (ABCS) with their Digital University (DU). The instructors train more than 3,000 Soldiers per year to use 16 battle command systems currently being used by Army units (see page. 20). They conduct this training in their classrooms at Grafenwoehr or they take the training to unit locations with their mobile training teams (MTTs). The DU also conducts over-the-shoulder training during exercises to teach operators and commanders how to effectively operate and integrate their battle command systems.

The JMSC conducts Command Post Exercises (CPXs) that incorporate a live Common Operating Picture from Iraq and Afghanistan. Some deployed unit position data is culled out and combined with future locations of participating units to form a hybrid environment of current real-world and simulated unit locations and events. This technique is supported by a realistic scenario and a dynamic Master Scenario Event List database. It allows actual events down range to provide some of the context and events that

are traditionally role-played. This type of training is facilitated by the Joint Exercise Control Suite. It enables low-overhead, multi-echelon, complex Live-Constructive-Gaming exercises by integration between VBS2, Joint Conflict and Tactical Simulation (JCATS), and battle command systems such as Force XXI Battle Command for Brigade and below (FBCB2) and the Command Post of the Future (CPOF). This type of training has been praised by commanders.

The JMSC is the only BCTC certified by the Joint Forces Command, Joint National Training Capability Program to conduct Joint training. To arrange training with the JMSC, call DSN (314) 475-JMSC (5672) or contact your local TSC.

## JMSC DIGITAL UNIVERSITY COURSES

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**ADOBE CONNECT** (Collaboration Tool)

**AFATADS** (Advanced Field Artillery Tactical Data System)

**ASAS** (All Source Analysis System)

**BCS** (Battle Command Server)

**BFT** (Blue Force Tracker)

**CIDINE** (Combined Information Data Network Exchange)

**CPOF** (Command Post of the Future)

**C2PC** (Command and Control Personal Computer)

**DCGS-A** (Distributed Common Ground System-Army)

**EMT** (Effects Management Tool)

**FALCONVIEW** (Geospatial Intelligence Viewer)

**FBCB2/ULM** (Force XXI Battle Command for Brigade and below/Unit Level Maintenance)

**ICSF** (Integrated C4I System Framework)

**JADOCs** (Joint Automated Deep Operations Coordination System)

**MCS** (Maneuver Control System)

**TIGR** (Tactical Ground Reporting System)

## Take the training and head (TF) East

Story by Kevin Penelton, Chief TSAE Operations Branch

## TRAINING SUPPORT CENTERS IN ROMANIA AND BULGARIA

**T**raining Support Activity Europe (TSAE) continues to demonstrate the unique capabilities and versatility that provide USAREUR units with world-class training and readiness support throughout the USAREUR area of operations. TSAE is currently providing training support in Romania and Bulgaria as part of the Task Force-East (TF-E) mission from August through October.



TSAE mobilized equipment and personnel from across USAREUR and sent them to Romania and Bulgaria to augment Training Support Center (TSC) assets already in place to best support the training unit's requirements. Those assets in place in both Romania and Bulgaria include: small arms and machine gun qualification ranges from 25-500m, Local Training Areas (LTAs), and maneuver ranges that

can support up to platoon level collective live fire, and Mobile MOUT sites which allow Soldiers to train in Urban operations. Assets that were mobilized across USAREUR to support TF-E included Engagement Skills Trainers (EST), HMMWV Egress Assistance Trainers (HEAT), Training Improvised Explosive Devices (TIED), Stryker MILES, and Call for Fire Trainers (CFFT). In addition, TSAE sent USAREUR-unique training assets such as the Deployable Instrumentation

Systems Europe (DISE), a system which can provide commanders with a instrumented force-on-force, After-Action Review (AAR) capabilities, and Deployable Range Packages, targetry which now provides a modern, scalable live fire target

capability. TSAE's Regional Training Support Center-Expeditionary (RTSC-E) is responsible for providing training support in Romania and Bulgaria and has supported three previous rotations of training. "Lessons learned from previous rotations contributed to the current success, said John Barnett, RTSC-E Chief. "I am excited at how well prepared we were for this exercise.



HMMWV Egress Assistance Trainer (HEAT)  
Photo by Michael Beaton

This was our first opportunity to support the 2SCR and its unique training capability as well as to provide simultaneous training support from both Romania and Bulgaria." The ability to provide this full range of training assets and opportunities is what makes TSAE a leader in the training support arena, and allows deployed units to maintain readiness anywhere. For additional information on support for TF-E or any other mission, contact your RTSC, TSC or TSAE headquarters.



Training on the Engagement Skills Trainer (EST)  
Photo by Martin Greeson

**JMTC** This feature is easily downloaded on the web at: <http://www.hqjmtc.army.mil>

## JMSC CAPABILITIES



## JMSC MODELS AND SIMULATIONS



JCATS - Primary constructive Simulations used by JMTC for staff training.



JDLM - Used for deployment and logistics training.



TACSIM - Intel Simulation training objectives

## BATTLE COMMAND SYSTEMS TRAINING

Conducted by the JMTC Digital University



## SENIOR LEADER MEDIA TRAINING

Conducted by the JMTC Global News Network



**SIMULATED OPPOSING FORCE**  
Provides a thinking enemy for simulation and scenario event-based training



**GAME BASED DESKTOP TRAINING**  
Trains small unit TTPs (it's easily deployable)



Photos by James Kirby



## FEATURE

# A Different kind of Supermodel

Story and Photos by Sgt. Cassandra Groce, 133rd Mobile Public Affairs Detachment

## JMTC TRAINING AIDS PRODUCTION CENTER BUILDS CHINOOK REPLICA TRAINING MODEL - ONE VERY LARGE BIRD.

**F**rom hand-painted maps to full-scale replicas of CH-47s, the Joint Multinational Training Command (JMTC) uses top-quality models to create a realistic combat setting for Soldiers. These detailed replicas, produced by the Training Aids Production Center in Grafenwoehr, Germany, give Soldiers an opportunity to safely train on gear and prepare for deployment the most recent additions to these striking designs are three full-scale CH-47s to be used for jump exercises and limited loading throughout Europe. So far four months have been invested into the Chinooks, which are being sent to Schweinfurt, Vicenza and Bamberg. These replicas provide an inexpensive alternative for combat preparation without sacrificing hands-on, realistic experiences.

"It can be overwhelming to attempt an efficient loading process for the first time on a Chinook with blades turning," Chief Warrant Officer James Cameron explained. "The Chinook, with its two 5,000 horsepower engines and its five screaming transmissions, puts out about 180 decibels of sound. Add to that the hurricane force winds from the rotor system and the enormous heat coming off the engines...it's easy to understand why this training is best perfected in a mock-up."

Since there is only one company of Chinooks available in Europe, it presents a logistical and supply challenge for units requesting aviation training. "The challenge has always been

coordinating with the aviation units to get an aircraft to train on," Cameron added. "By having a model to use at our leisure, leaders will be able to conduct more training. This model provides a means of getting the process of air assault operations into the muscle memory of our Soldiers."



**"THE CHINOOK WITH ITS TWO 5,000 HORSEPOWER ENGINES AND ITS FIVE SCREAMING TRANSMISSIONS, PUTS OUT ABOUT 180 DECIBELS OF SOUND. ADD TO THAT THE HURRICANE FORCE WINDS FROM THE ROTOR SYSTEM AND THE ENORMOUS HEAT COMING OFF THE ENGINES... IT'S EASY TO UNDERSTAND WHY THIS TRAINING IS BEST PERFECTED IN A MOCK-UP."**

Beyond large scale aircraft, JMTC has also supported the production of model grenades and various weapons. Rubber pistols and knives are highly beneficial in military police disarmament training. "They crack too many guns, destroy pistols, and that's very costly," said German Visual Information Specialist Thomas Bartels. "To reduce this cost,



it is very good to use a rubber model. We get an original, take it to pieces, and we build a model from those pieces to train the Soldiers to work with it." The replicas may seem simple, but the process requires months of planning, designing, creating a prototype, and reevaluating a design before the final product is released. Months of thought went into designing animal IEDs that are used in Soldiers' combat-training. The animals were designed based on current events in war zones like Iraq and Afghanistan. What started as simple rubber carcasses has evolved to a very sleek stuffed animal that houses an IED simulator.

"We wound up with a dog, a sheep and a goat," John Krollpfeiffer, the Chief of TAPC said. "This is filled with foam, but they hide the IED's in these things. In Iraq there's a lot of dead animals [that insurgents] will stuff explosives into."

Besides simulating realistic combat episodes, and providing more efficient training models, a Soldier also needs a good map. TAPC produces 3-D maps that further enhance Soldiers visual awareness of a country before they



actually deploy there. "Maps are going to be one of our biggest hits down here, I think we'll be very busy with maps." Krollpfeiffer added.

"We send the maps to various units who will be deploying – for instance transportation units, you name it."



Photo (above) by Sandra Roemer

**REALISTIC MODELS THAT SAVE LIVES : THE ANIMALS WERE DESIGNED BASED ON CURRENT EVENTS IN WAR ZONES LIKE IRAQ AND AFGHANISTAN. WHAT HAD STARTED AS SIMPLE RUBBER CARCASSES HAS EVOLVED INTO A VERY SLEEK STUFFED ANIMAL THAT HOUSES AN IED SIMULATOR.**

Because a unit can create, design and manufacture the perfect training aid, with the help of the TAPC, the possibilities are limitless. The Soldiers training in Europe are sure to get very realistic training, and be better prepared for tactical movements, using non-standard training tools that represent the realities of the current operational environment.



JMTC This feature is easily downloaded on the web at: <http://www.hqjmtc.army.mil>